



MAIL STOP
APPEAL BRIEF -- PATENTS
991094

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hiroshi TUNODA Confirmation: 1948
Serial No.: 09/406,798 Group Art Unit: 2622
Filed: September 28, 1999 Examiner: J. Misleh
For: METHOD FOR RECORDING IMAGE DATA BY SIGNAL
PROCESS WITH STORAGE MEDIUM AND RECORDING
PROCESS IN RECORDING MEDIUM PERFORMED IN
PARALLEL AND IMAGE PICKUP APPARATUS

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 13, 2007

Sir:

Further to the Notice of Appeal filed May 25, 2007, and pursuant to the Notice of Panel Decision from Pre-Appeal Brief Review mailed July 13, 2007, Appellant hereby submits this Brief in support of the appeal of the rejections in the Office Action mailed January 26, 2007.

Please charge the \$500 fee under 37 C.F.R. §41.20(b)(2) for filing a Brief on Appeal to Deposit Account No. 01-2340, and please credit any overpayment to said Deposit Account.

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I. Real party in interest

The real party in interest is Sanyo Electric Co., Ltd.

II. Related appeals and interferences

There are no related appeals or interferences as of the filing date of this Brief.

III. Status of claims

Claims 1-27 are pending and stand rejected as follows:

A. Claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 are rejected under 35 U.S.C. §102(e) as being anticipated by Fukushima et al. (U.S. 6,253,023).

B. Claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fukushima et al. (U.S. 6,253,023) in view of Anderson et al. (U.S. 5,867,214).

A copy of the text of claims 1-27, the rejections of which have been appealed, is attached as an Appendix to this Brief.

IV. Status of amendments

No claims have been amended since the filing of an after-final Amendment under 37 C.F.R. §1.116 on November 13, 2006, and the entry of these claim amendments in a Request for Continued Examination (RCE) filed December 14, 2006.

In response, a non-final Office Action was mailed January 26, 2007, rejecting all pending claims.

A Notice of Appeal, Pre-Appeal Brief Request for Review, and Reasons for Pre-Appeal Brief Request for Review were filed in the U.S. Patent and Trademark Office on May 25, 2007, together with a Petition for Extension of Time.

In response, a Pre-Appeal Brief Conference decision was mailed on July 3, 2007.

V. Summary of claimed subject matter

The present invention is an image pickup apparatus in which movie images including sound are stored in a storage medium (10) until a predetermined amount of data is reached, and then the image data is transferred into non-volatile recording medium (11). While the transfer is taking place, image data continues to be recorded in the storage medium.

The following is a recitation of independent claims 1, 7, 13, 19, 22 and 25, indicating where in the specification each element of each claim finds its support:

Claim 1 is directed to a method for recording image, comprising the steps of:

storing image data continuously obtained by an image pickup operation (see page 10, lines 9-11, of the specification) and in a storage medium (see page 12, lines 2-6 and 17-23, of the specification and Figure 5):

measuring the amount of the image data stored in the storage medium until reaching a predetermined amount of data (see page 17, lines 14-21, and page 21, lines 11-15, of the specification and Figure 5); and

recording each piece of the image data being stored in the storage medium into a non-volatile recording medium after the measured amount of the image data equals the predetermined amount (see page 14, lines 2-6, and page 21, lines 11-15 of the specification and Figure 5),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see page 16, line 20, through page 18, line 2; page 21,

line 6, through page 23, line 6; and page 25, line 17, through page 27, line 22, of the specification and Figure 5) .

Claim 7 recites an image pickup apparatus (Figure 3A, Item 1) comprising:

an optical lens (Figure 3A, item 2; page 9, line 24, of the specification) ;

an image pickup device (Figure 4, item 8; page 10, line 24, of the specification) for taking image through the optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

storage instructions device (Figure 4, item 9; page 12, lines 2-6, of the specification) for storing image data continuously obtained by an image pickup operation of the image pickup device in a storage medium (Figure 4, item 10; page 11, lines 19-24, of the specification);

record instructing device (Figure 4, item 9; page 12, lines 2-6, of the specification) for allowing a record the image data from the storage medium to a non-volatile recording medium(Figure 5; page 14, lines 2-6, and page 21, lines 11-15, of the specification);

measuring device for measuring of the amount of image data stored in the storage medium until reaching a predetermined amount of data (Figure 4, item 9; Figure 5; page 17, lines 14-21, and page 21, lines 11-15 of the specification); and

parallel processing instruction device (Figure 4, item 9), for instructing the record instructing device to record into a non-volatile recording medium each piece of the image data being stored in the storage medium during the storing operation of each piece of image data continuously obtained by the image pickup operation after the measured amount of the image data equals the predetermined amount (see page 14, lines 2-6, and page 21, lines 11-15, of the specification and Figure 5),

wherein after starting the record instructing device, the storing each piece of image data continuously obtained by the image pickup operation in the storage medium by the storage instructions device and the recording each piece of the image data being stored in the storage medium into the non-volatile recording medium by the record instructing device are performed

continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see page 16, line 20, through page 18, line 2; page 21, line 6, through page 23, line 6; and page 25, line 17, through page 27, line 22, of the specification and Figure 5).

Claim 13 is directed to an image pickup apparatus where image data continuously obtained by an image pickup operation are stored in a storage medium (Figure 4, item 10) and the image data being stored in the storage medium are recorded into a non-volatile recording medium (Figure 4, item 11; Figure 5; page 14, lines 2-6, and page 21, lines 11-15, of the specification), the image pickup apparatus comprising:

- an optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

- an image pickup device (Figure 4, item 8; page 10, line 24, of the specification) for taking image through the optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

- a controller (Figure 4, item 9) which is capable of performing the following operations;

- (i) storing continuously (see page 10, lines 9-11) the image data in the storage medium (see page 12, lines 2-6 and 17-23, of the specification and Figure 5) ;

- (ii) measuring the amount of the image data stored in the storage medium until reaching a predetermined amount of data (see page 17, lines 14-21, and page 21, lines 11-15, of the specification and Figure 5);

- (iii) recording each piece of the image data being stored in the storage medium into the recording medium after the measured amount of the image data equals the predetermined amount (see page 14, lines 2-6, and page 21, lines 11-15, of the specification and Figure 5),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the recording medium are

performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see page 16, line 20, through page 18, line 2; page 21, line 6, through page 23, line 6; and page 25, line 17, through page 27, line 22, of the specification and Figure 5).

Claim 19 recites a method for recording image, comprising the steps of:

storing image data continuously (see page 10, lines 9-11) obtained by an image pickup operation in a storage medium (see page 12, lines 2-6 and 17-23 of the specification and Figure 5);

counting the number of images of the image data stored in the storage medium until reaching a predetermined number (see page 14, lines 2-6, and page 21, lines 11-15, of the specification and Figure 5); and

recording each piece of the image data being stored in the storage medium into a non-volatile recording medium after the measured number of the image data equals the predetermined number (see page 14, lines 2-6, and page 21, lines 11-15, of the specification and Figure 5),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

Claim 22 is directed to an image pickup apparatus comprising:

an optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

an image pickup device (Figure 4, item 8; page 10, line 24, of the specification) for taking image through the optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

storage instructions device for storing image data continuously obtained by an image pickup operation of the image pickup device in a storage medium (Figure 4, item 10; page 11, lines 19-24, of the specification);

record instructing device (Figure 4, item 9; page 12, lines 2-6, of the specification) for allowing a record the image data from the storage medium to a non-volatile recording medium (Figure 4, item 10; page 11, lines 19-24, of the specification);

measuring device for counting the number of images of image data stored in the storage medium until reaching a predetermined number (Figure 4, item 9; Figure 5; page 17, lines 14-21, and page 21, lines 11-15, of the specification); and

parallel processing instruction device (Figure 4, item 9), for instructing the record instructing device to record into a non-volatile recording medium each piece of the image data being stored in the storage medium during the storing operation of each piece of image data continuously obtained by the image pickup operation after the measured number of the image data equals the predetermined number (see page 14, lines 2-6, and page 21, lines 11-15, of the specification and Figure 5),

wherein after starting the record instructing device, the storing each piece of image data continuously obtained by the image pickup operation in the storage medium by the storage instructions device and the recording each piece of the image data being stored in the storage medium into the non-volatile recording medium by the record instructing device are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see page 16, line 20, through page 18, line 2; page 21, line 6, through page 23, line 6; and page 25, line 17, through page 27, line 22, of the specification and Figure 5).

Claim 25 is directed to an image pickup apparatus where image data continuously obtained by an image pickup operation are stored in a storage medium (Figure 4, item 10) and the image data

being stored in the storage medium are recorded into a non-volatile recording medium (Figure 4, item 11; Figure 5; page 14, lines 2-6, and page 21, lines 11-15, of the specification), the image pickup apparatus comprising:

an optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

an image pickup device (Figure 4, item 8; page 10, line 24, of the specification) for taking image through the optical lens (Figure 3A, item 2; page 9, line 24, of the specification);

a controller (Figure 4, item 9) which is capable of performing the following operations;

(i) storing the image data continuously (see page 10, lines 9-11) in the storage medium (see page 12, lines 2-6 and 17-23, of the specification and Figure 5);

(ii) counting the number of images of the image data stored in the storage medium until reaching a predetermined number (Figure 4, item 9; Figure 5; page 17, lines 14-21, and page 21, lines 11-15, of the specification);

(iii) recording each piece of the image data being stored in the storage medium into the recording medium after the measured number of the image data equals the predetermined number (Figure 4, item 9; Figure 5; page 17, lines 14-21; page 21, lines 11-15, of the specification),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see page 16, line 20, through page 18, line 2; page 21, line 6, through page 23, line 6; and page 25, line 17, through page 27, line 22, of the specification and Figure 5).

VI. Grounds of rejection to the reviewed on appeal

Two grounds of rejection are to be reviewed on appeal:

A. the rejection of claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 under 35 U.S.C. §102(e) as being anticipated by Fukushima et al. (U.S. 6,253,023); and

B. the rejection of claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fukushima et al. (U.S. 6,253,023) in view of Anderson et al. (U.S. 5,867,214).

VII. Argument

A. Claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25, and 27 are not anticipated by Fukushima et al. (U.S. 6,253,023) under 35 U.S.C. §102(e).

The test for anticipation under 35 U.S.C. '102 was set forth by the Federal Circuit in Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed Cir. 1987). In the Verdegaal case, the Court indicated that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Id.* The Richardson Court further indicated that “[t]he identical invention must be shown in as complete detail as contained in the claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1990).

The prior art, Fukushima et al., fails to expressly or inherently describe a key features recited in all the independent claims. Specifically, Fukushima et al. fails to expressly or inherently disclose, as exemplified by claim 1,

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium **are performed continuously, in parallel and irrespective of the amount of the image data stored** in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data. (Emphasis Added)

It is the Appellant’s position that the hard drive used in Fukushima et al. cannot be kept operating continuously and in parallel while both storing and recording image data due to the power

consumption required by the hard drive and therefore must be switched to a power save mode or a stand-by mode.

Specifically, Fukushima et al. in column 6, lines 46-63, states:

The hard disk unit has the following three modes: an active mode, a **power save mode** and a **standby mode**.

The active mode is a mode for indicating that the hard disk unit is executing a data reading operation, a data writing operation or a sector seeking operation or the hard disk unit is placed in an idle state where the hard disk is rotating while waiting for the next command.

The power save mode is a mode for indicating that the hard disk is rotating with a head being retracted from the hard disk. Mode switching from the power save mode to the aforesaid active mode takes approximately several hundred milliseconds.

The standby mode is a mode for indicating that the rotation of the hard disk is stopped. Mode switching from the standby mode to the active mode takes a longer time than the mode switching from the power save mode to the active. (Emphasis Added)

The Examiner apparently agreed with the Appellant regarding the operation of the Fukushima et al. at one time during the prosecution history of the present application. On page 7, lines 4-8 of the Office Action mailed February 8, 2006 the Examiner states:

The Examiner acknowledges the Fukushima et al. does not teach constantly recording the image data from the buffer memory (6) to the hard drive (8), rather teaches continuously capturing and storing images and recording bursts of image of image data from the buffer memory (6) to hard drive (8) after certain requirements are met.” (Emphasis Added)

Further, during an in-person interview which took place on May 3, 2007 with the Examiner=s representative, the Examiner indicated that due to the long lead time required to bring a hard drive to proper rotational speed it would not be feasible to stop the hard drive and restart it to continue

recording and therefore “inferred” that, once started, the hard drive (8) of Fukushima et al. continued operating and thus could store and record image data continuously and in parallel.

However, as previously discussed the Fukushima et al. invention discloses a power save mode or a stand-by mode (See column 6, lines 54-63 of Fukushima et al.). It takes approximately several hundred milliseconds to go from the power save mode to the active mode. Further, Fukushima et al. states in column 9, lines 49-56,

As is known, when the hard disk in the hard disk unit is to be initially rotated, control parameters such as rotational servo data for the hard disk are varied according to the state of the hard disk. As a result, there is a case where the start-up time of the hard disk during the initial rotating operation thereof becomes longer than that of the hard disk during the second rotating operation ... (Emphasis Added)

Therefore, in Fukushima et al. second and subsequent startups of the hard drive takes less time than the initial startup and the hard drive (8) can thus be placed in standby mode to save power.

Further it is the Appellant’s contention that Fukushima et al. realized the power consumption of a disk drive is considerable was forced to incorporate a power save mode and stand-by mode in its design to save power.

Further, and simply stated, there is no description or suggestion in Fukushima et al. that image data may be stored and recorded continuously and in parallel as recited in the independent claims. On page 3, lines 1-4 of the Office Action mailed January 26, 2007, the Examiner asserts that “Fukushima et al. disclose an image pickup device that is capable of ”stably executing continuous recording of an image signal by means of a simple arrangement with a small power consumption” (see column 3, lines 39-43)”. However, simply because the term “continuous” is used in the reference, there is no suggestion that image data may be stored in a storage medium and then

recorded in a non-volatile recording medium continuously and in parallel as recited in the independent claims. No such disclosure is provided by Fukushima et al.

Further, Fukushima et al. fails to disclose recording and storing of image data takes place “irrespective of the amount of the image data stored in the storage medium during the image pickup operation” as recited in the independent claims. Fukushima et al. states in column 3, lines 44-54,

To achieve the above-described objects, according to one aspect of the present invention, there is provided an image signal processing apparatus for processing an image signal, which comprises first storage means for temporarily storing image data inputted therinto and outputting the image data, second storage means having a moving element for storing in a recording medium the image data outputted from the first storage means, and operation controlling means for moving the moving element of the second storage means **after a predetermined amount of image data is stored in the first storage means.** (Emphasis Added)

Still further, Figure 2 of Fukushima et al. indicates that “DECREMENT RECCNT” is present in step 16, hence “TRANSMIT IMAGE DATA TO HARD DRIVE” in step 15 is not limited to transmittance of the entire image data stored in the memory unit at once. However, since transmittance to a hard drive is always carried out in step 11 based on the comparison result of RECCNT and CTH. Therefore, Fukushima et al. fails to disclose the storing in a storage medium and the recording in a non-volatile recording medium recording irrespective of the amount of the image data stored in the storage medium as recited in the independent claims.

Therefore, reversal of the rejection of claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25 and 27 under 35 U.S.C. §102(e) as being anticipated by Fukushima et al. is respectfully requested.

B. Claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 are not obvious over Fukushima et al. (U.S. 6,253,023) in view of Anderson et al. (U.S. 5,867,214) under 35 U.S.C. §103(a).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

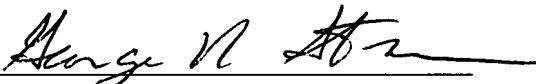
The Examiner has failed the third criteria discussed above. The combined references fail to teach or suggest all the claim limitations. Claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 are all dependent claims that incorporate the features of the claims they directly or indirectly depend from. In this case, the prior art references fail to disclose all the features of the independent claims as discussed above.

Therefore, reversal of the rejection of claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26 under 35 USC §103 as unpatentable over Fukushima et al. (U.S. 6,253,023) in view of Anderson et al. (U.S. 5,867,214) is respectfully requested.

To the extent necessary, the Commissioner is hereby authorized to charge any required fee not otherwise paid, including application processing, extension, extra claims, and appellate fees, to said Deposit Account.

Respectfully submitted,
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By:


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VIII. Claims Appendix

1. (*Previously presented*) A method for recording image, comprising the steps of:
storing image data continuously obtained by an image pickup operation in a storage medium;
measuring the amount of the image data stored in the storage medium until reaching a
predetermined amount of data; and

recording each piece of the image data being stored in the storage medium into a non-volatile
recording medium after the measured amount of the image data equals the predetermined amount,

wherein after starting the step of recording, the step of storing each piece of image data
continuously obtained by the image pickup operation in the storage medium and the step of recording
each piece of the image data being stored in the storage medium into the non-volatile recording
medium are performed continuously, in parallel and irrespective of the amount of the image data
stored in the storage medium during the image pickup operation without pausing, interrupting or
reducing the rate of recording the image data.

2. (*Original*) The method for recording image according to Claim 1, further comprising the
steps of:

storing in the storage medium storage information including a start address and data length of
the image data being stored in the storage medium; and

recording the image data being stored in the storage medium to the recording medium based
on the storage information.

3. (*Original*) The method for recording image according to Claim 1, wherein the step of
storing image data in the storage medium includes the steps of:

converting an image signal obtained by the image pickup operation to the image data by the
frame of image, and

compressing the image data before storing in the storage medium.

4. (*Original*): The method for recording image according to Claim 3, wherein the image data are compressed according to a motion picture compression form.

5. (*Original*): The method for recording image according to Claim 2, wherein the steps of storing image data in the storage medium includes the steps of:

converting an image signal obtained by the image pickup operation to the image data by the frame of image; and

compressing the image data before storing in the storage medium.

6. (*Original*) The method for recording image according to Claim 5, wherein the image data are compressed according to a motion picture compression form.

7. (*Previously presented*): An image pickup apparatus comprising:

an optical lens;

an image pickup device for taking image through the optical lens;

storage instructions device for storing image data continuously obtained by an image pickup operation of the image pickup device in a storage medium;

record instructing device for allowing a record the image data from the storage medium to a non-volatile recording medium;

measuring device for measuring of the amount of image data stored in the storage medium until reaching a predetermined amount of data; and

parallel processing instruction device, for instructing the record instructing device to record into a non-volatile recording medium each piece of the image data being stored in the storage

medium during the storing operation of each piece of image data continuously obtained by the image pickup operation after the measured amount of the image data equals the predetermined amount,

wherein after starting the record instructing device, the storing each piece of image data continuously obtained by the image pickup operation in the storage medium by the storage instructions device and the recording each piece of the image data being stored in the storage medium into the non-volatile recording medium by the record instructing device are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

8. (*Previously presented*) The image pickup apparatus according to Claim 7, wherein the storage instructions device stores in the storage medium storage information including a start address and data length of the image data stored in the storage medium; and the record instructing device allows to record the image data stored in the storage medium into the recording medium based on the storage information.

9. (*Previously presented*): The image pickup apparatus according to Claim 7, further comprising:

A/D conversion device for converting an image signal obtained by the image pickup device from analog image signals to digital image signals;

image data conversion device for converting the converted digital image signals to image data; and

compressing device for compressing the converted image data,

wherein the compressed image data are stored in the storage medium.

10. *(Previously presented)*: The image pickup apparatus according to Claim 9, wherein the compressing device compresses the image data according to a motion picture compression form.

11 *(Previously presented)*: The image pickup apparatus according to Claim 8, further comprising:

A/D conversion device for converting an image signal obtained by the image pickup device from analog image signals to digital image signals;

image data conversion device for converting the converted digital image signals to image data; and

compressing device for compressing the converted image data,

wherein the compressed image data are stored in the storage medium.

12. *(Previously presented)*: The image pickup apparatus according to Claim 11, wherein the compressing device compresses the image data according to a motion picture compression form.

13 *(Previously presented)*: An image pickup apparatus where image data continuously obtained by an image pickup operation are stored in a storage medium and the image data being stored in the storage medium are recorded into a non-volatile recording medium, the image pickup apparatus comprising:

an optical lens;

an image pickup device for taking image through the optical lens;

a controller which is capable of performing the following operations;

i) storing continuously the image data in the storage medium;

ii) measuring the amount of the image data stored in the storage medium until reaching a predetermined amount of data;

iii) recording each piece of the image data being stored in the storage medium into the recording medium after the measured amount of the image data equals the predetermined amount, wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

14. (*Original*) The image pickup apparatus according to Claim 13, further comprising the following operations:

iv) storing in the storage medium storage information including a start address and data length of the image data being stored in the storage medium; and
v) recording the image data being stored in the storage medium to the recording medium based on the storage information.

15. (*Original*) The image pickup apparatus according to Claim 13, wherein the operation i) of storing image data in the storage medium includes the following operations:

i-i) converting an image signal obtained by the image pickup operation to the image data by the frame of image, and
i-ii) compressing the image data before storing in the storage medium.

16. (*Original*) The image pickup apparatus according to Claim 15, wherein the image data are compressed according to a motion picture compression form.

17. (*Original*) The image pickup apparatus according to Claim 14, wherein the operation i) of storing image data in the storage medium includes the following operations:

i-i) converting an image signal obtained by the image pickup operation to the image data by the frame of image, and

i-ii) compressing the image data before storing in the storage medium.

18. (*Original*) The image pickup apparatus according to Claim 17, wherein the image data are compressed according to a motion picture compression form.

19. (*Previously presented*): A method for recording image, comprising the steps of:
storing image data continuously obtained by an image pickup operation in a storage medium;
counting the number of images of the image data stored in the storage medium until reaching a predetermined number; and

recording each piece of the image data being stored in the storage medium into a non-volatile recording medium after the measured number of the image data equals the predetermined number,

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

20. (*Previously presented*): The method for recording image according to Claim 19, further comprising the steps of:

storing in the storage medium storage information including a start address and data length of the image data being stored in the storage medium; and

recording the image data being stored in the storage medium to the recording medium based on the storage information.

21. (*Previously presented*): The method for recording image according to Claim 19, wherein the step of storing image data in the storage medium includes the steps of:

converting an image signal obtained by the image pickup operation to the image data by the frame of image, and

compressing the image data before storing in the storage medium.

22. (*Previously presented*): An image pickup apparatus comprising:

an optical lens;

an image pickup device for taking image through the optical lens;

storage instructions device for storing image data continuously obtained by an image pickup operation of the image pickup device in a storage medium;

record instructing device for allowing a record the image data from the storage medium to a non-volatile recording medium;

measuring device for counting the number of images of image data stored in the storage medium until reaching a predetermined number; and

parallel processing instruction device, for instructing the record instructing device to record into a non-volatile recording medium each piece of the image data being stored in the storage medium during the storing operation of each piece of image data continuously obtained by the image pickup operation after the measured number of the image data equals the predetermined number,

wherein after starting the record instructing device, the storing each piece of image data continuously obtained by the image pickup operation in the storage medium by the storage instructions device and the recording each piece of the image data being stored in the storage medium into the non-volatile recording medium by the record instructing device are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

23. (*Previously presented*): The image pickup apparatus according to Claim **22**, wherein the storage instructions device stores in the storage medium storage information including a start address and data length of the image data stored in the storage medium; and

the record instructing device allows to record the image data stored in the storage medium into the recording medium based on the storage information.

24 (*Previously presented*): The image pickup apparatus according to Claim **22**, further comprising:

A/D conversion device for converting an image signal obtained by the image pickup device from analog image signals to digital image signals;

image data conversion device for converting the converted digital image signals to image data; and

compressing device for compressing the converted image data,

wherein the compressed image data are stored in the storage medium.

25. (*Previously presented*) An image pickup apparatus where image data continuously obtained by an image pickup operation are stored in a storage medium and the image data being

stored in the storage medium are recorded into a non-volatile recording medium, the image pickup apparatus comprising:

- an optical lens;
- an image pickup device for taking image through the optical lens;
- a controller which is capable of performing the following operations;
 - i) storing the image data continuously in the storage medium;
 - ii) counting the number of images of the image data stored in the storage medium until reaching a predetermined number;
 - iii) recording each piece of the image data being stored in the storage medium into the recording medium after the measured number of the image data equals the predetermined number,wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium and the step of recording each piece of the image data being stored in the storage medium into the recording medium are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data.

26. *(Previously presented)* The image pickup apparatus according to Claim 25, further comprising the following operations:

- vi) storing in the storage medium storage information including a start address and data length of the image data being stored in the storage medium; and
- vii) recording the image data being stored in the storage medium to the recording medium based on the storage information.

27. *(Previously presented)* The image pickup apparatus according to Claim 25,

wherein the operation i) of storing image data in the storage medium includes the following operations:

i-i) converting an image signal obtained by the image pickup operation to the image data by the frame of image, and

i-ii) compressing the image data before storing in the storage medium.

IX. Evidence Appendix

None. There is no evidence being submitted pursuant to 37 CFR §1.130, §1.131 or §1.132 in this Appeal Brief.

X. Related proceedings appendix

None. There is no known related proceedings associated with this Appeal Brief.